What is claimed is:

- A method of prophylaxis of a patient at risk for systemic inflammatory response syndrome and complications thereof or of treating a patient having systemic inflammatory response syndrome or complications thereof, which comprises administering to said patient a therapeutically effective amount of a selective inhibitor of cyclooxygenase-2.
- The method of claim 1, wherein the systemic inflammatory response syndrome is at least one of sepsis, pancreatitis, burns, or trauma.
- A method of prophylaxis of a patient at risk for systemic 3. inflammatory response syndrome and complications thereof or of treating a patient having systemic inflammatory response syndrome or complications thereof, which comprises administering to said patient a therapeutically effective amount of a drug which interferes with binding of PGE2 to one or more PGE2 receptors.
- A method of prophylaxis of a patient at risk for systemic 4. inflammatory response syndrome and complications thereof or of treating a patient having systemic inflammatory response syndrome or complications thereof, which comprises administering to said patient a therapeutically effective amount of a drug which stimulates one or more PGE₂ receptors.
- The method of claim 3 or 4 wherein the PGE₂ receptors are 5. selected from the group consisting of EP1, EP2 EP3, and EP4.
- 6. The method of claim 3 wherein the drug is selected from the group consisting of a small molecule, peptide, peptide mimetic, and RNA-DNAbased structure.
- 7. The method of claim 3, wherein the systemic inflammatory response syndrome is at least one of sepsis, pancreatitis, burns or trauma.
- The method of claim 4 wherein the systemic inflammatory 8. response syndrome is at least one of sepsis, pancreatitis, burns, or trauma.

- 9. The method of claim 1 wherein the patient at risk for systemic inflammatory response syndrome and complications thereof is a patient who has sustained at least one of trauma, burn injury, life threatening blood loss from penetrating injury, or a patient who has undergone surgery.
- 10. The method of claim 3 wherein the patient at risk for systemic inflammatory response syndrome and complications thereof is a patient who has sustained at least one of trauma, burn injury, life threatening blood loss from penetrating injury, or a patient who has undergone surgery.
- 11. The method of claim 4 wherein the patient at risk for systemic inflammatory response syndrome and complications thereof is a patient who has sustained at least one of trauma, burn injury, life threatening blood loss from penetrating injury, or a patient who has undergone surgery.
- 12. The method of claim 1 wherein the complications of systemic inflammatory response syndrome is at least one of septic shock, infections such as pneumonia, septicemia, bacteremia, urinary tract infections, wound infections or drug reactions.
- 13. The method of claim 3 wherein the complications of systemic inflammatory response syndrome is at least one of septic shock, infections such as pneumonia, septicemia, bacteremia, urinary tract infections, wound infections or drug reactions.
- 14. The method of claim 4 wherein the complications of systemic inflammatory response syndrome is at least one of septic shock, infections such as pneumonia, septicemia, bacteremia, urinary tract infections, wound infections or drug reactions.
- 15. The method of claim 1 wherein the cyclooxygenase-2 inhibitor is at least one of NS-398, celicoxib, MK-0966, or paracoxib.
- 16. A method of beneficial immune modulation which comprises administering to a patient in need of such modulation a therapeutically effective amount of a drug which stimulates one or more PGE₂ receptors.

- 17. A method of beneficial immune modulation which comprises administering to a patient in need of such modulation a therapeutically effective amount of a drug which interferes with binding of PGE₂ to one or more PGE₂ receptors.
- 18. The method of claim 16 wherein the drug is selected from the group consisting of a small molecule, peptide, peptide mimetic, and RNA-DNA-based structure.
- 19. The method of claim 17 wherein the drug is selected from the group consisting of a small molecule, peptide, peptide mimetic, and RNA-DNA-based structure.
- 20. The method of claim 16 wherein the drug is at least one of sulprostone, 11-deoxy-PGE₁ or ONO-AP-324.
- 21. The method of claim 17 wherein the drug is at least one of AH-6809, ONO-8711, ONO-8713, and AH23848.
- 22. The method of claim 3 wherein the drug is at least one of AH-6809, ONO-8711, ONO-8713, and AH23848.
- 23. The method of claim 4 wherein the drug is at least one of sulprostone, 11-deoxy-PGE₁ or ONO-AP-324.

add A!